

IN THE CLAIMS

Cancel claims 3, 5, and 6 without prejudice to renewal.

Please enter the amendments to claims 1, 2, 4, 7, 10, 11, and 18, as shown below.

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1. (Amended) An isolated nucleic acid encoding a mammalian leucine-rich repeat-containing G-protein coupled receptor 7 (LGR7) protein, wherein the LGR7 protein comprises an amino acid sequence having at least 80% amino acid sequence identity to the sequence set forth in SEQ ID NO:08.

2. (Amended) An isolated nucleic acid according to Claim 1, wherein said mammalian protein has the amino acid sequence of SEQ ID NO:06 or SEQ ID NO:08.

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4. (Amended) An isolated nucleic acid according to Claim 1, wherein the nucleotide sequence of said nucleic acid has the sequence set forth in SEQ ID NO:05 or the complementary sequence thereof or the sequence set forth in SEQ ID NO:07 or the complementary sequence thereof.

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7. (Amended) An isolated nucleic acid that hybridizes under stringent conditions at 50°C or higher in a solution of 15 mM sodium chloride, 1.5 mM sodium citrate to a nucleic acid having the nucleotide sequence set forth in SEQ ID NO:05 or the complementary sequence thereof or the sequence set forth in SEQ ID NO:07 or the complementary sequence thereof.

10. (Amended) A method for producing a mammalian leucine-rich repeat-containing G-protein coupled receptor 7 (LGR7) protein, wherein the LGR7 protein comprises an amino acid sequence having at least 80% amino acid sequence identity to the sequence set forth in SEQ ID NO:08, said method comprising:

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growing a cell according to Claim 9, whereby said mammalian protein is expressed; and isolating said protein substantially free of other proteins.

11. (Amended) A purified polypeptide composition comprising a mammalian leucine-rich repeat-containing G-protein coupled receptor 7 (LGR7) protein or a fragment thereof, wherein the LGR7 protein is at least about 80% pure, and wherein the LGR7 protein comprises an amino acid sequence having at least 80% amino acid sequence identity to the sequence set forth in SEQ ID NO:08.

18. (Amended) A method of screening a sample for the presence of a ligand for leucine-rich repeat-containing G-protein coupled receptor 7 (LGR7) receptor, said method comprising:

a7 contacting said sample with an LGR7 receptor, wherein the LGR7 receptor comprises an amino acid sequence having at least 80% amino acid sequence identity to the sequence set forth in SEQ ID NO:08, and

detecting the presence of binding between said receptor and ligand in said sample.